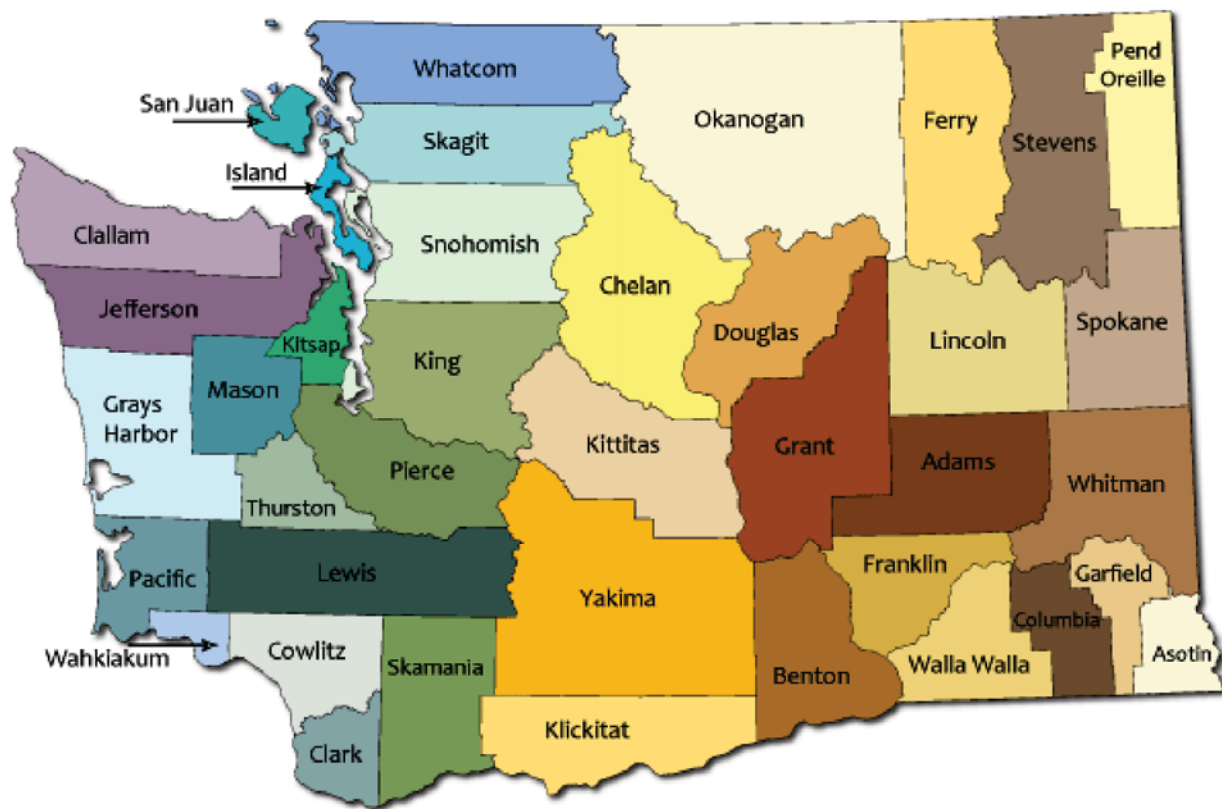


Washington State TB Epidemiological Report, 2010



DOH 343-112

For persons with disabilities, this document is available on request in other formats. To submit a request, please call 1-800-525-0127 (TDD/TTY 1-800-833-6388).

Purpose

The purpose of the Washington State Epidemiological Report is to provide an overview of the progress towards reaching national and state tuberculosis objectives in Washington State. This progress is determined by defined objectives from both the Washington State TB Program and the National Tuberculosis Indicators Project (NTIP). NTIP is a monitoring system for tracking the progress of U.S. tuberculosis (TB) control programs toward achieving the national TB program objectives. This system will provide TB programs with reports to describe their progress, based on data already reported to the Centers for Disease Control and Prevention (CDC). In addition, these reports will help programs prioritize prevention and control activities, as well as program evaluation efforts.

For more information about the data presented in this report, or to learn more about data related to your specific county or area, please contact:

Washington State Department of Health TB Program
P.O. Box 47837
Olympia, WA 98504
PH: 360-236-3443
Fax: 360-236-3405
Email: tbservices@doh.wa.gov

Washington State and National Objectives

Washington State Tuberculosis Services Objectives and Performance Targets—2010-2014

Below are state tuberculosis (TB) program objectives. Each objective is targeted by the Washington State TB Services for 2010, based on Washington State epidemiology and recent program performance.

State Objectives (National Objective)	Baseline	Performance targets by year					National Performance Targets
	(2004-2008)	2010	2011	2012	2013	2014	
Completion of treatment** (1)	85.8	85.0	87.0	89.0	91.0	93.0	93.0
US-born Persons* (2)	1.4	1.4	1.3	1.2	1.1	1.0	0.7
Foreign-born persons* (2)	23.8	23.0	22.5	22.0	21.5	21.0	14.0
US-born non-Hispanic blacks* (2)	5.3	5.3	5.2	5.1	5.0	4.9	1.3
Children younger than 5 years of age* (2)	1.9	1.8	1.7	1.6	1.5	1.4	.04
Contacts Elicited** (3)	99	100	100	100	100	100	100
Evaluation of contacts** (3)	68	80	81	82	83	85	93.0
LTBI with treatment initiated** (3)	72	73	74	75	76	77	88.0
LTBI started treatment completed treatment** (3)	47	50	52	54	56	58	79
Laboratory Reporting**+ (4)	16.3	16.5	17.0	18.0	19.0	20.0	Not available
Drug-susceptibility result** (4)	98.5	99.0	99.0	100.0	100.0	100.0	100
Treatment initiation** (5)	86.3	87.0	88.0	89.0	90.0	90.0	Not available
Sputum culture conversion** (5)	61.5	62.0	63.0	64.0	65.0	65.0	61.5
Data completeness reporting for RVCT ** (7)	98.9	99.0	99.0	99.1	99.2	99.2	99.2
Data completeness reporting for ARPEs ** (7)	92.6	100	100	100	100	100	100
Data completeness reporting for EDN ** (7)	76.6	80.0	85.0	90.0	95.0	98.0	Not available
Recommended initial therapy** (8)	90.1	92.0	92.0	93.0	93.4	93.4	93.4
Universal genotyping** (9)	93.8	94.0	94.0	95.0	95.0	95.0	94
Known HIV status** (10)	83.8	85.0	86.0	87.0	88.0	89.0	88.7
Evaluation initiation within 30 days** (11)	31.0	31.0	32.0	33.0	34.0	35.0	Not available
Evaluation Completion within 90 days** (11)	78	80	81	82	83	85	Not available
Treatment initiation** (11)	80	100	100	100	100	100	Not available
Treatment completion** (11)	100	100	100	100	100	100	Not available
Sputum-culture reported** (12)	95.0	95.0	95.7	95.7	96.0	96.0	95.7

* All units are cases per 100,000 persons

** All units are in percent.

+ percent represents specimens and not confirmed cases

**** Awaiting national targets from CDC

National Program Objectives

The national TB program objectives reflect the national priorities for TB control in the United States. In 2006, a team representing TB programs and the Division of Tuberculosis Elimination (DTBE) selected 15 high-priority TB program objective categories. The program objective categories are:

1. Completion of treatment
2. TB case rates (in populations: U.S.-born persons, foreign-born persons, U.S.-born non-Hispanic blacks, and children younger than 5 years of age)
3. Contact investigations
4. Laboratory reporting
5. Treatment initiation
6. Sputum culture conversion
7. Data reporting (Report of Verified Case of Tuberculosis [RVCT], the Aggregate Reports for Tuberculosis Program Evaluation [ARPEs], and the Electronic Disease Notification [EDN] system)
8. Recommended initial therapy
9. Universal genotyping
10. Known HIV status
11. Evaluation of immigrants and refugees
12. Sputum culture reporting
13. Program evaluation
14. Human resource development plan
15. TB training focal points

TB programs funded through cooperative agreements will be expected to report on their progress toward achieving all 15 national TB program objective categories starting in 2010.

These objectives can be found at

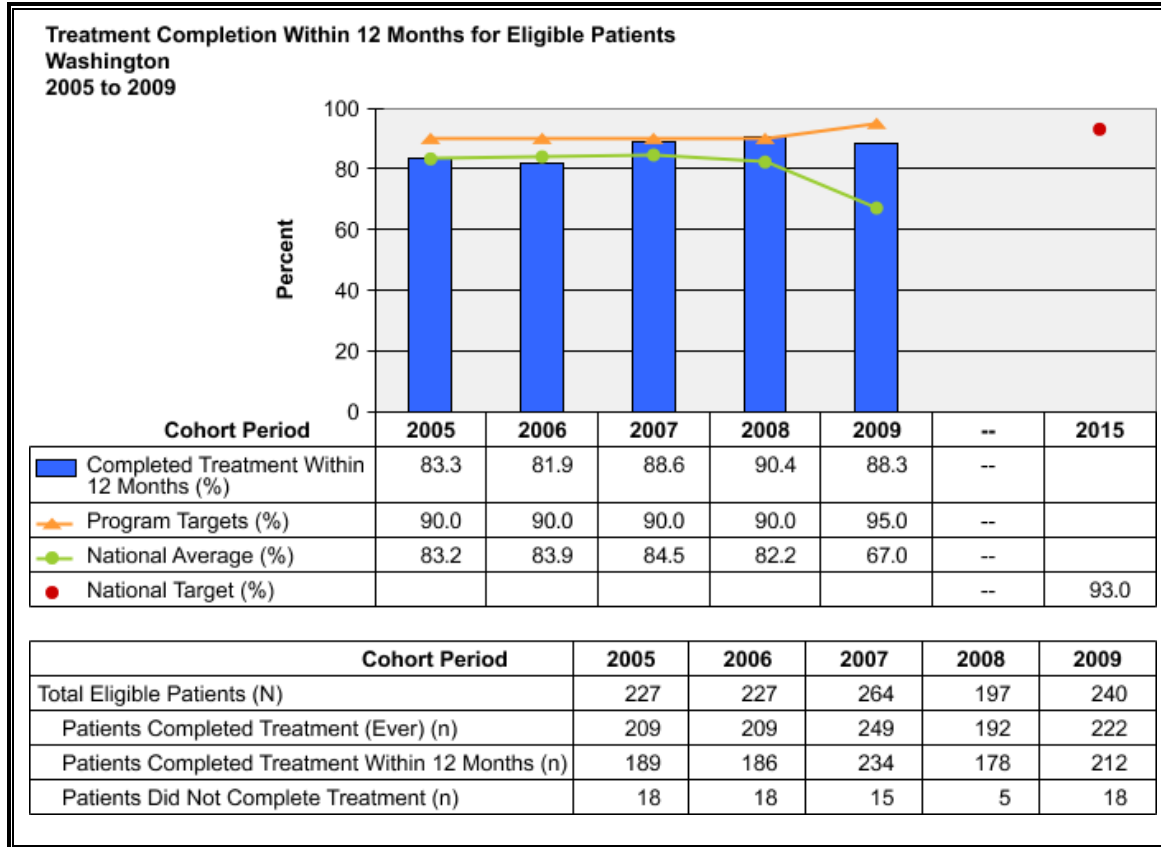
<http://www.cdc.gov/tb/publications/factsheets/statistics/NTIP.htm>

In addition to the national program objectives listed above, the CDC has two goals (listed below) that do not have national program objectives established at this time. Specific objectives relating to these two goals will be established in the future.

1. National Goal: Increase the percentage of immigrants and refugees designated as Class A, B1, or B2 who are appropriately evaluated and treated.
2. National Goal: For jurisdictions with greater than 50 reported cases of TB occurring annually in U.S.-born African Americans, decrease the case rate.

2010 PROGRAM OBJECTIVES

OBJECTIVE 1. Completion of Treatment Within 12 Months



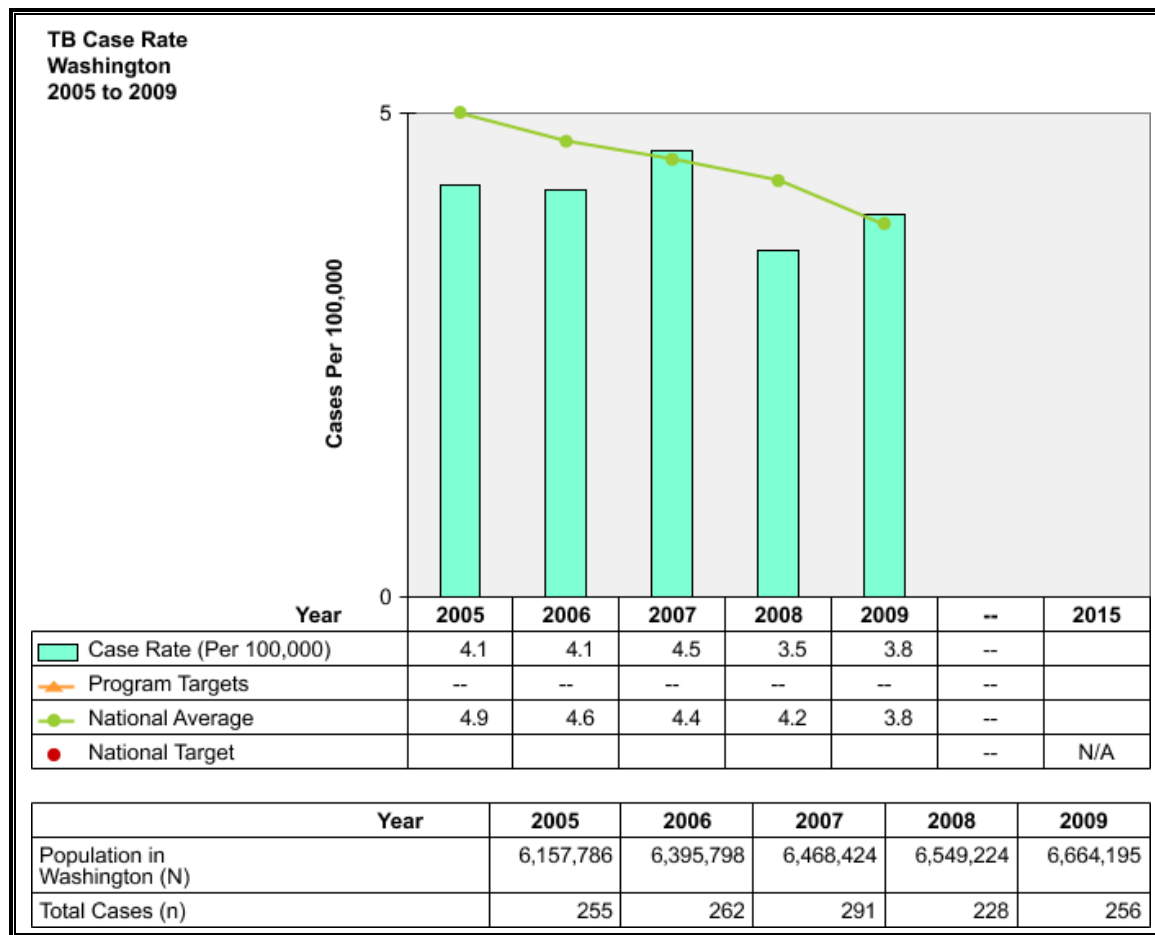
Status: Met.

For the years 2007 through 2009, Washington State has improved upon prior performance and exceeded both the national average and its own 2010 benchmark of 85.0% for treatment completion within 12 months among eligible active TB patients. While a slight decline in treatment completion is noted for 2009, we expect to meet the 2015 National Target of 93.0% in 2010.

Discussion:

Out of the 239 patients eligible for treatment 18 patients (7.4%) did not complete treatment. 0.8% were lost to follow up and 6.6% died before completing treatment.

OBJECTIVE 2a. TB Case Rates—Washington State; Overall



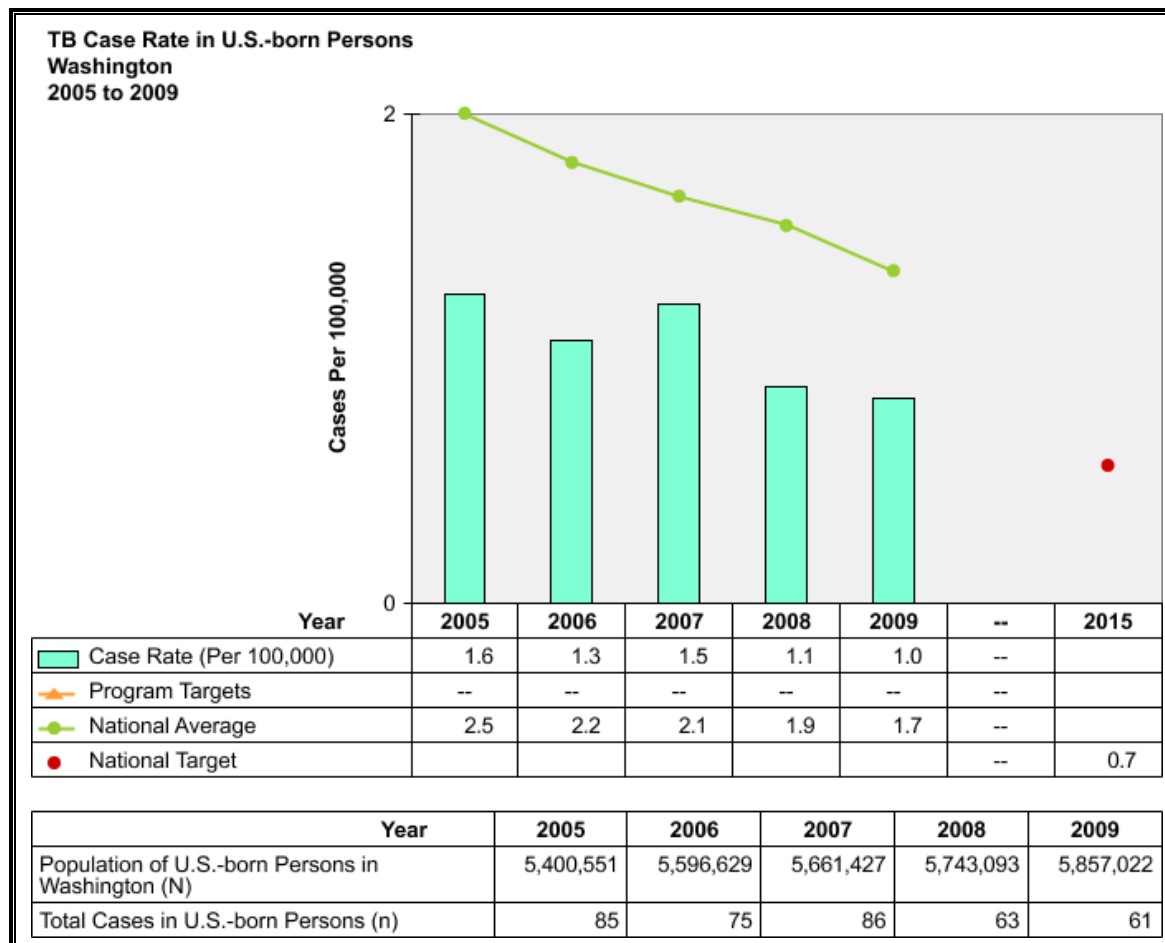
Status:

In 2005, 2006, and 2008-2009, Washington State's crude TB case rate overall has been equal to or lower than the national average. After experiencing a slight increase from 3.5 cases per 100,000 population in 2008 to 3.8 in 2009, this overall case rate has returned to 3.5 for 2010 (data not shown).

Discussion:

At the county level, 19 counties reported no new cases, while 14 counties reported five or fewer cases. King (130), Pierce (34), and Snohomish (28) counties accounted for 75% of TB cases in 2009. When compared to 2008, the largest TB rate increase was reported from Clark County in southwest Washington, while the largest decrease was from Yakima County in central eastern Washington.

OBJECTIVE 2b. TB Case Rates—Washington State; U.S.-born Persons



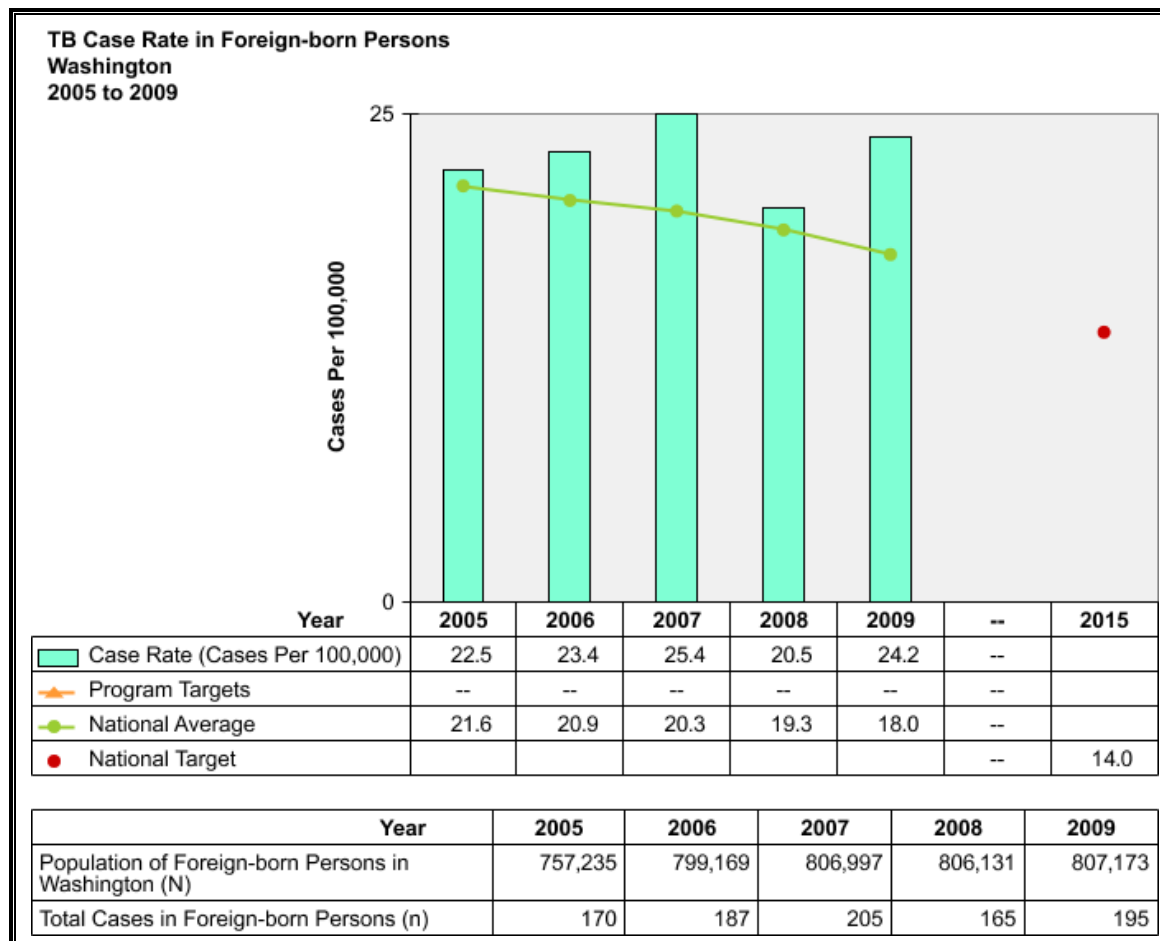
Status: Met.

In all years 2005 through 2009, Washington State's crude TB case rate among U.S.-born persons has remained lower than the national average. In 2006, and again in 2008 and 2009, this case rate has also been lower than Washington State's own benchmark for 2010 of 1.4 cases per 100,000 population; and at 1.0, this rate for 2009 has already matched our benchmark for 2014. Apart from a singular exception in 2007, data since 2005 show gradual declines in case rates among U.S.-born persons which supports our expectation of ultimately meeting the National Target of 0.7 cases per 100,000 population by 2015.

Discussion:

The majority of cases among U.S. born persons include: children of foreign-born parents and Washington residents with high-risk factors interviewed and evaluated after recent exposure to an infectious case of TB.

OBJECTIVE 2c. TB Case Rates—Washington State; Foreign-born Persons



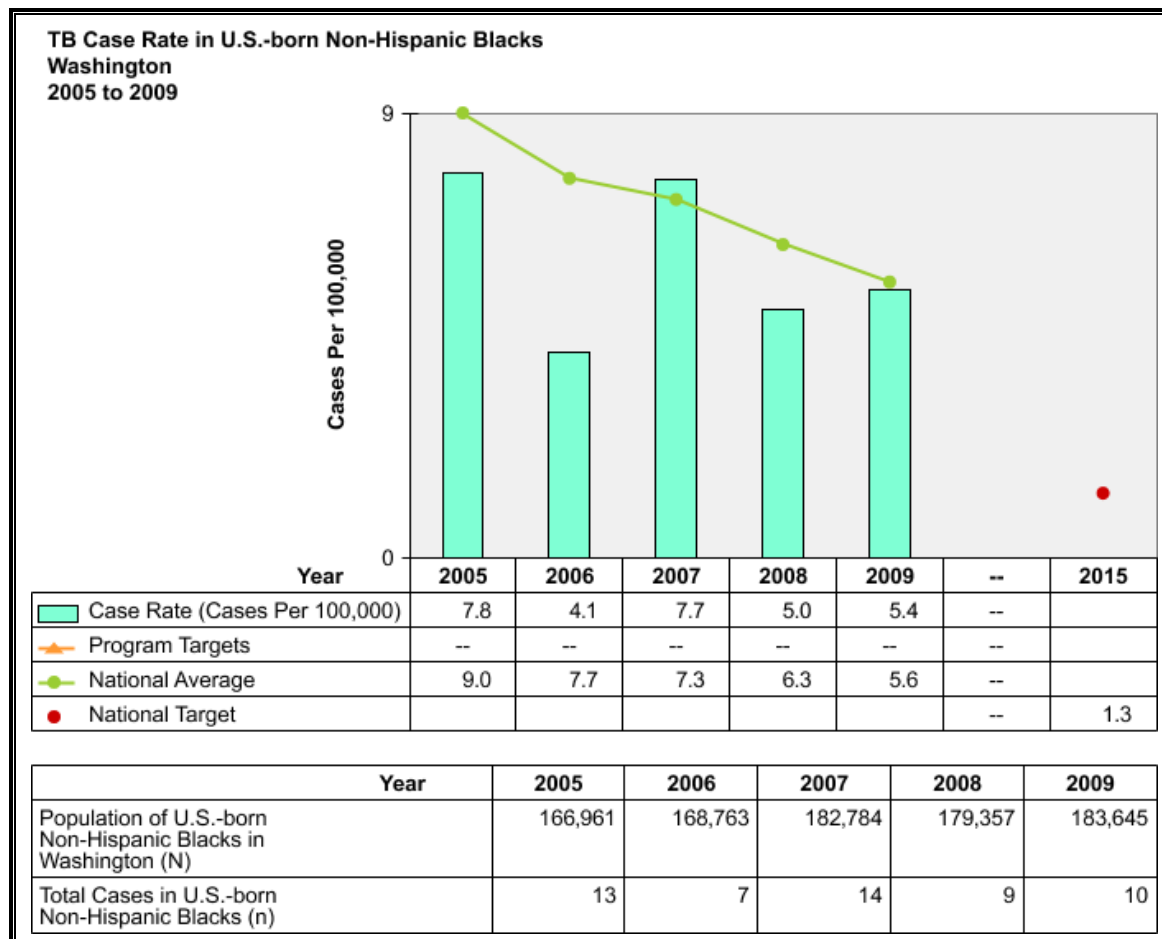
Status: Ongoing.

Data from 2005 through 2009 show that Washington State has not yet realized any clear or consistent progress in meeting its 2010 benchmark of 23.0 cases per 100,000 among foreign-born persons; nor towards reaching the 2015 National Target of 14.0 cases per 100,000 population. Washington State's most current rate of 24.2 cases per 100,000 population for 2009 exceeds the national average, as it has consistently since 2005; as well an average state rate for years 2004-2008 of 23.8.

Discussion:

77% of cases of TB in Washington State in 2009 were in foreign-born persons. This rate is expected to stay the same with past trends holding steady for the last 5 years and the risk of TB disease in foreign-born persons. Patients were reported as being from the Philippines, Mexico, Africa (Ethiopia and Somalia), and India.

OBJECTIVE 2d. TB Case Rates—Washington State; U.S-born Non-Hispanic Blacks



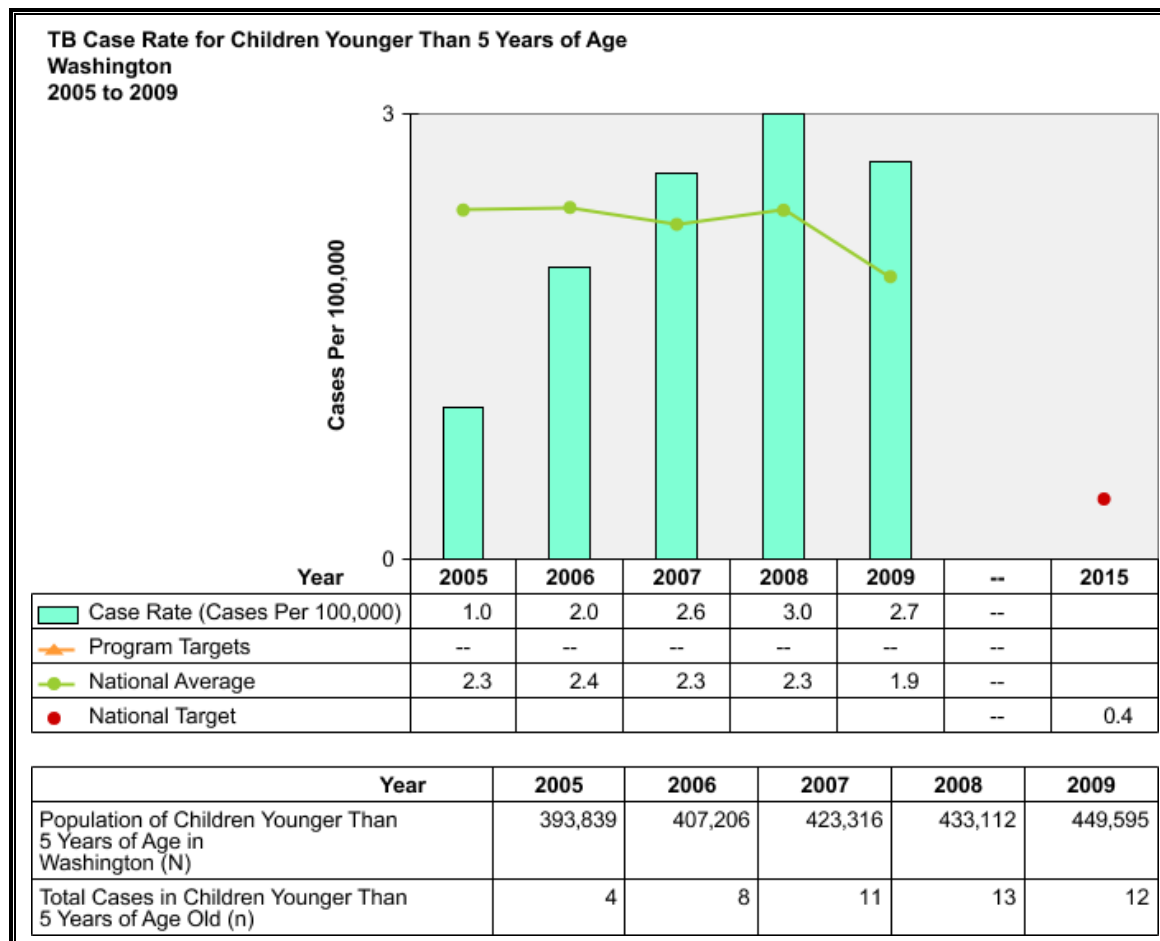
Status: Ongoing.

While in each of years 2005-2006 and 2008-2009, Washington State's TB case rate among U.S.-born Non-Hispanic Blacks has been lower than the national average, the state has not yet seen any clear or consistent progress in meeting its 2010 benchmark of 5.3 cases per 100,000 population, nor in reaching the 2015 National Target of 1.3 cases per 100,000. Certainly, the instabilities in these rates and any progress over time can be attributed in part to the relatively small number of cases seen among this population in Washington State.

Discussion:

Even though there are a small number of cases seen among U.S.-born Non-Hispanic Blacks, this is an area where efforts continue to be made to address the health disparities within this population.

OBJECTIVE 2e. TB Case Rates—Washington State; Children Younger than 5



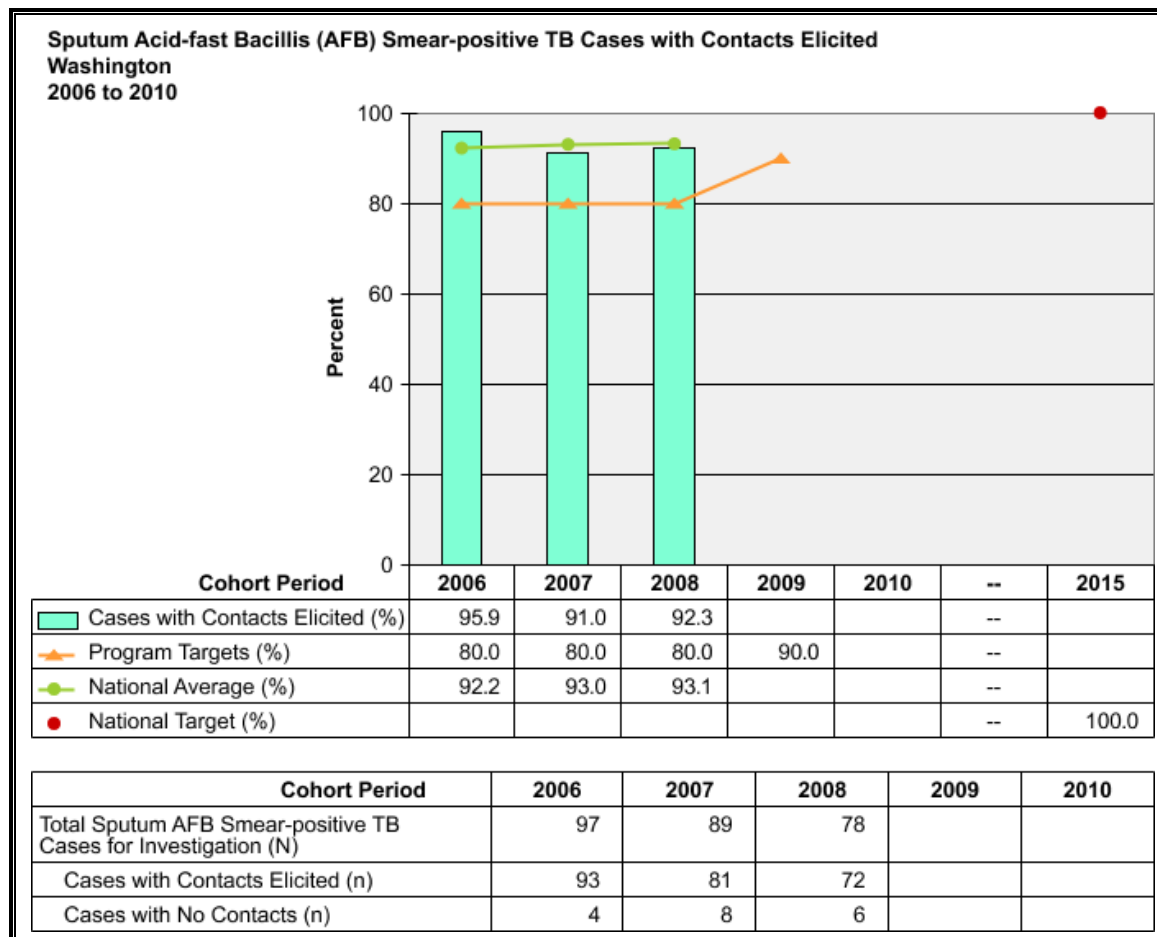
Status: Unmet.

In years 2005 through 2008, Washington State has seen a gradual and consistent increase in TB case rates among children under five years of age. While a slight decrease in this rate to 2.7 per 100,000 population was seen in 2009, in each of the years 2007-2009 the Washington State rate has exceeded the national average. To date, little consistent progress has been made in meeting either the 2010 Washington State benchmark of 1.8 cases per 100,000; nor in reaching towards the 2015 National Target of 0.4 cases per 100,000.

Discussion:

4 of the 12 children were born outside of the U.S. and 6 of the 12 children's parents were born outside of the U.S., leaving 2 children diagnosed with TB disease born in the U.S. and their parents are U.S. born. Childhood cases of TB indicates recent transmission of TB and we are working with the Local Health Jurisdictions to focus on source case investigations to identify index cases to get them treated. Contact investigations and availability of window prophylaxis for children exposed to TB continues to be important to reduce the number of children that develop active TB disease, as well.

OBJECTIVE 3a. Sputum Smear Positive TB Cases—Contacts Elicited



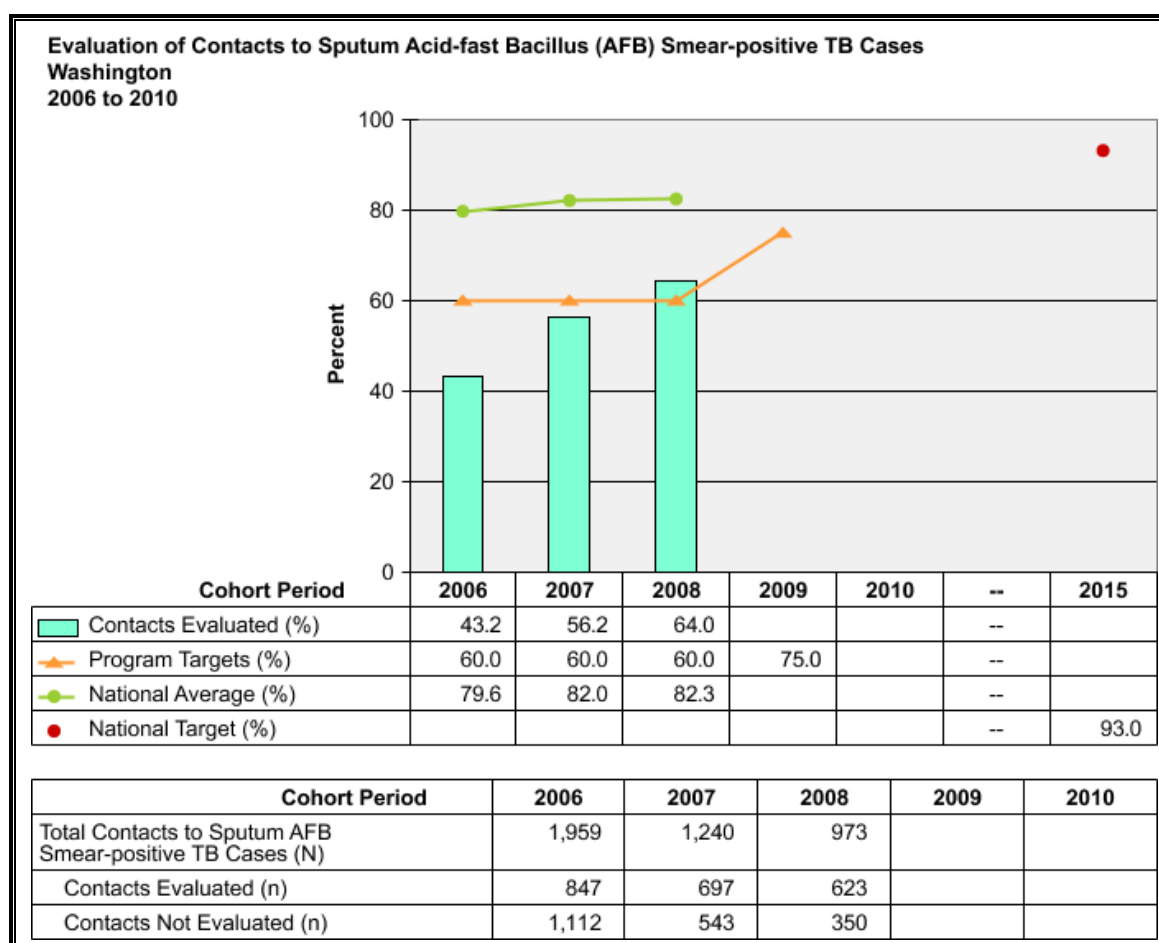
Status: Ongoing.

Washington State continues to strive towards its 2010 benchmark of 100% in the proportion of sputum smear-positive cases for whom contacts are elicited. Exceeding the national average in 2006 with 95.9% of such cases having contacts elicited, Washington State has since lagged behind the nation in this measure; most recently showing 92.3% of sputum smear-positive cases with contacts elicited for 2008.

Discussion:

Cases in which contacts were not elicited most likely had no high risk contacts identified during the index patient interview.

OBJECTIVE 3b. Contacts to Sputum Smear Positive TB Cases—Evaluation



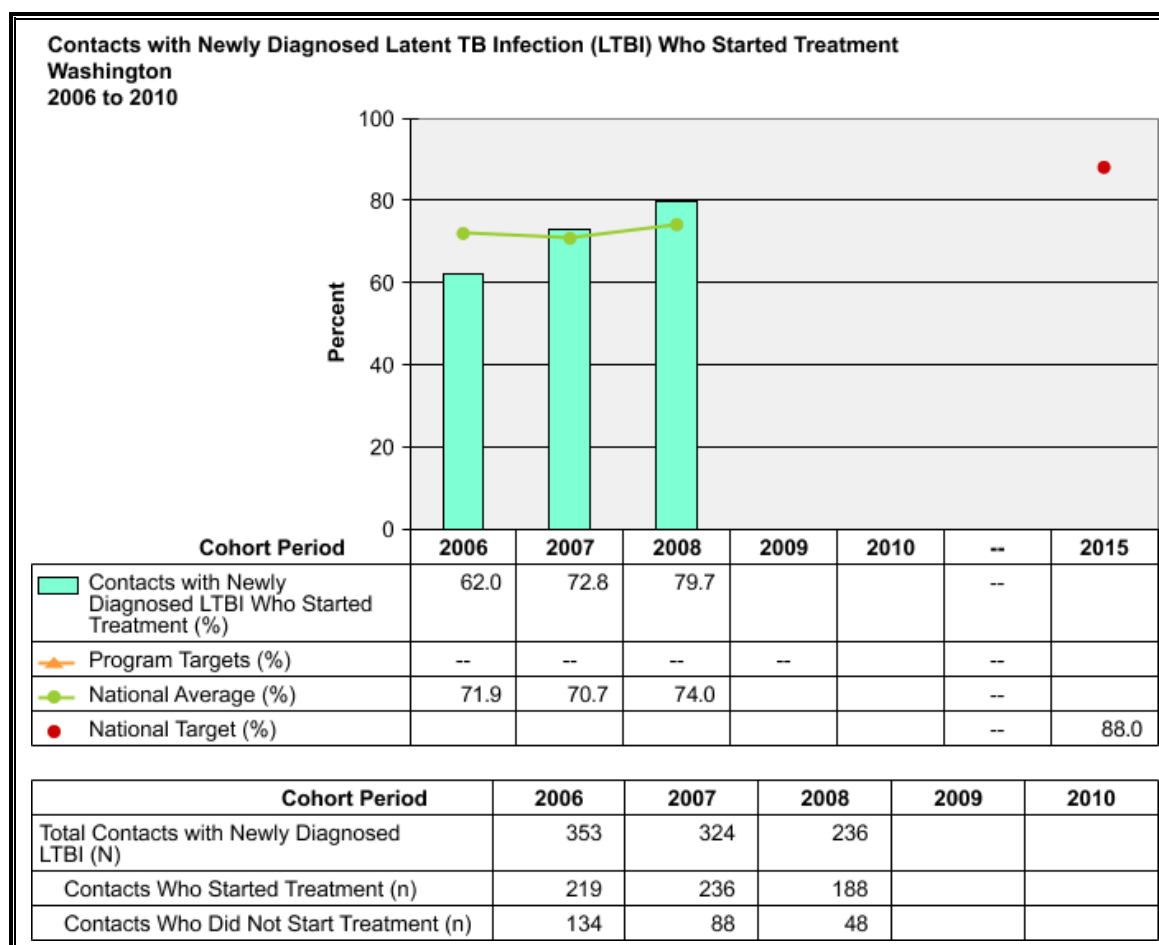
Status: Ongoing.

In years 2006 through 2008, Washington State has shown consistent improvement in the proportion of contacts to sputum smear-positive cases being fully evaluated; though performance on this measure has consistently lagged far behind the national average. Marked progress must be made for Washington State to meet its 2010 benchmark of 80.0% contacts evaluated, and to bring the 2015 National Target of 93.0% within reach.

Discussion:

Contact investigations continue to be a challenge; however the Local Health Jurisdictions strive for excellence in doing a complete and thorough job in difficult circumstances, with the information they obtain. The WA State TB Program staff receives an email notification when a case has been entered into PHIMS TB, which initiates a dialogue between the DOH TB Program and the Local Health Jurisdiction. The DOH TB Program staff discusses data that needs updating for a case; initiation and reporting of contact interviews and evaluation and start of treatment for those recommended LTBI treatment, and the initiation of the TB cohort form.

OBJECTIVE 3c. Contacts—Newly Infected Treatment Starts



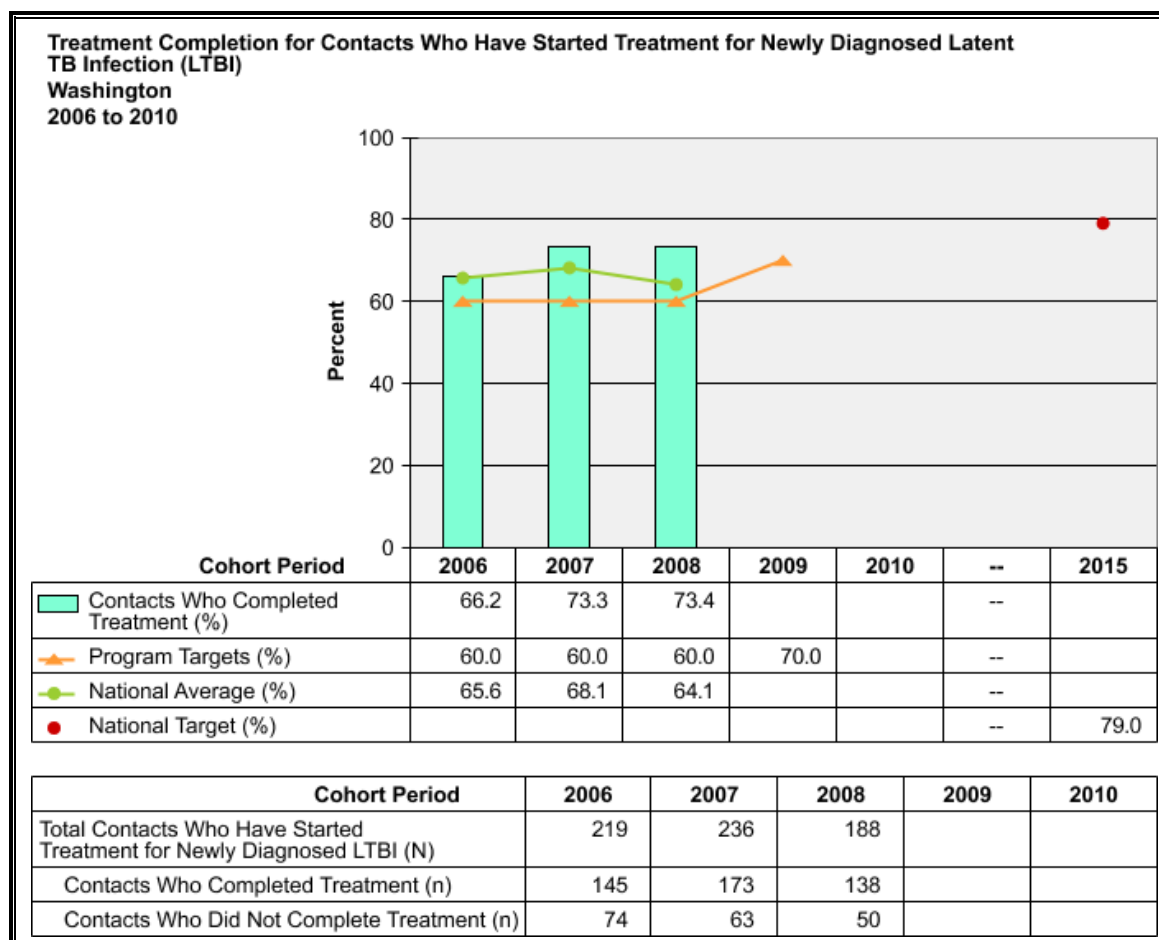
Status: Met.

From 2006 through 2008, Washington State has shown consistent improvement in the proportion of elicited contacts newly diagnosed with latent TB infection (LTBI) who are started on LTBI treatment. In years 2007 and 2008, Washington State has surpassed the national average on this measure; and in 2008 exceeded its 2010 benchmark of 73.0%. If past performance gains can be sustained, Washington State is well-positioned to reach the National Target of 88.0% by 2015.

Discussion:

The WA State DOH Information Technology staff is still in process of developing a way to add contact investigation reporting directly into PHIMS TB. The ability for the Local Health Jurisdictions to enter this information into a data management system will significantly improve the reporting of contact interviews, evaluations, initiation of treatment for LTBI and completion of treatment for LTBI.

OBJECTIVE 3d. Contacts—Treatment Completion Among Newly Infected Treatment Starts



Status: Met.

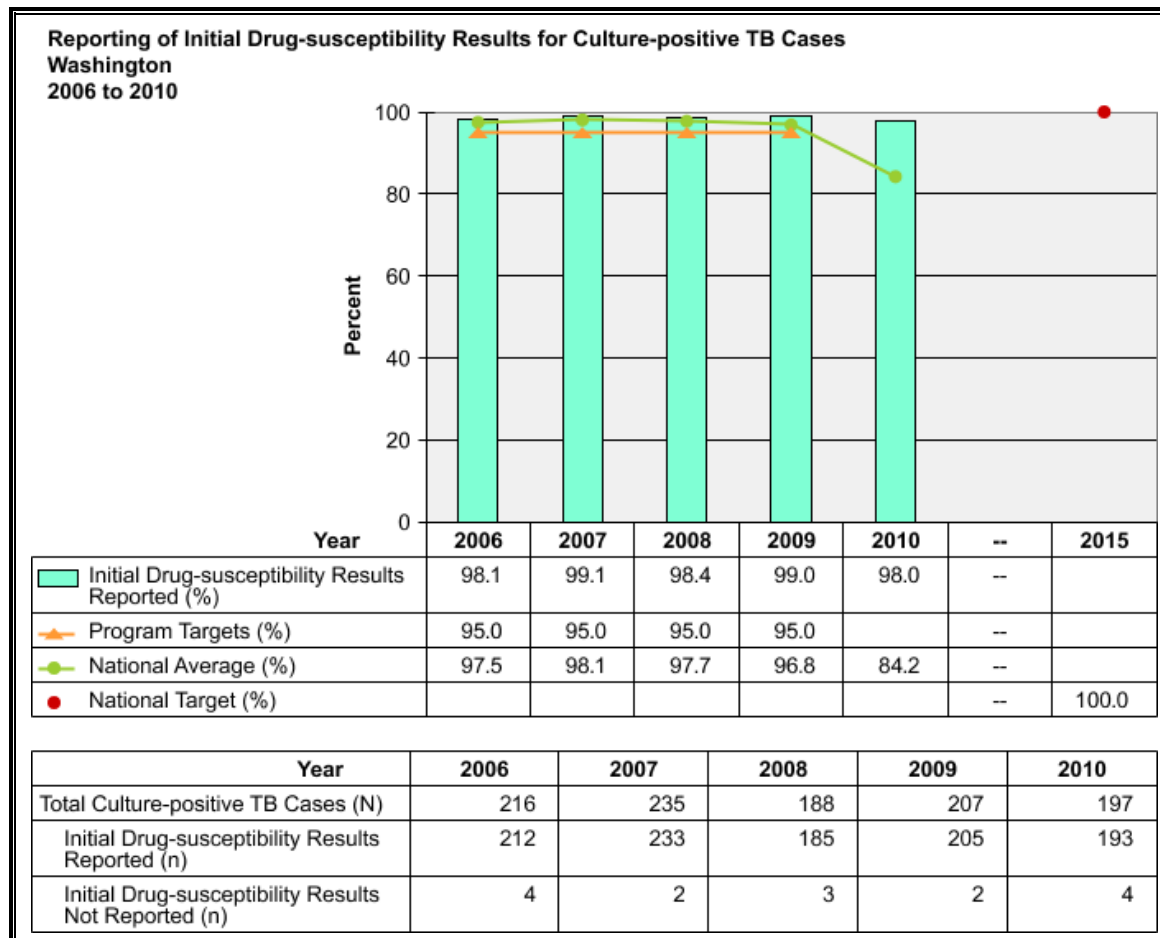
Washington State has shown consistent gains in treatment completion among newly infected contacts initiating treatment for LTBI. In each of years 2006 through 2008, Washington State's performance on this measure has exceeded the national average; and surpassed its own benchmarks set through 2014. Washington State is poised to reach the 2015 National Target of 79.0%, if such progress can be sustained.

Discussion:

Washington State has shown consistent gains in treatment completion among newly infected contacts initiating treatment for LTBI. In each of years 2006 through 2008, Washington State's performance on this measure has exceeded the national average; and surpassed its own benchmarks set through 2014. Washington State is poised to reach the 2015 National Target of 79.0%, if such progress can be sustained. LTBI treatment education is a vital part of the success for LTBI treatment completion. The WA State Local Health Jurisdictions are showing they are

making great strides with their education efforts by the consistent gains in treatment completion among newly infected contacts initiating treatment for LTBI.

OBJECTIVE 4. Culture Positive TB Cases—Reporting of Initial Drug-Susceptibility Results



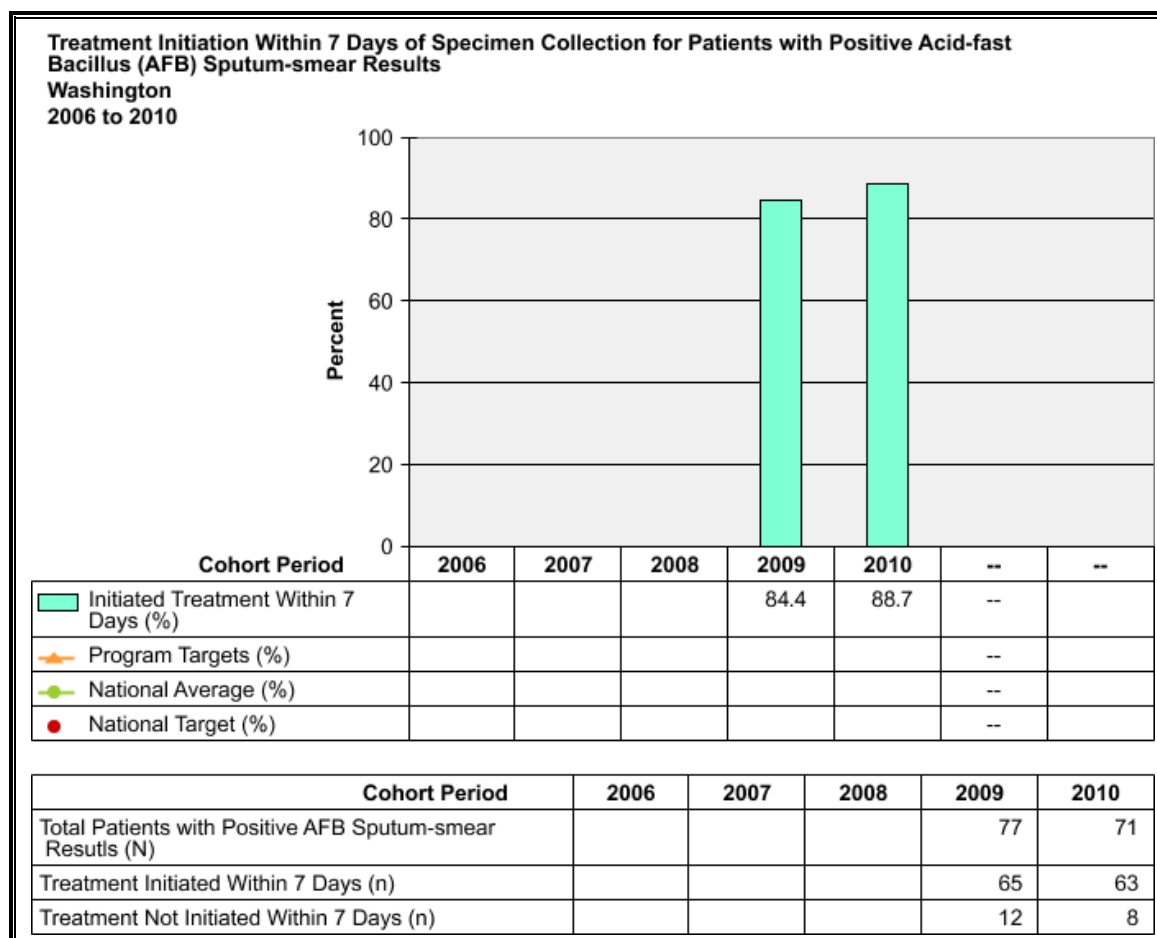
Status: Ongoing.

Since 2006, Washington State has demonstrated consistently high performance in reporting of initial drug-susceptibility results for culture positive TB cases; surpassing the national average in each of years 2006 through 2010. In 2007 and 2009, Washington State met its 2010 benchmark of 99.0% for this measure; though most recent figures for 2010 (98.0%) attest to the continued effort necessary to sustain this performance and to eventually meet the 2015 National Target of 100.0%.

Discussion:

The WA State DOH TB Program is currently evaluating the reporting process for drug-susceptibility results being released to the required agencies and organizations within a reasonable timeframe. Continued efforts of working with the State Public Health Lab and additional laboratories that perform drug-susceptibility testing are ongoing.

OBJECTIVE 5. Sputum Smear-Positive TB Cases—Treatment Initiation Within 7 days of Specimen Collection



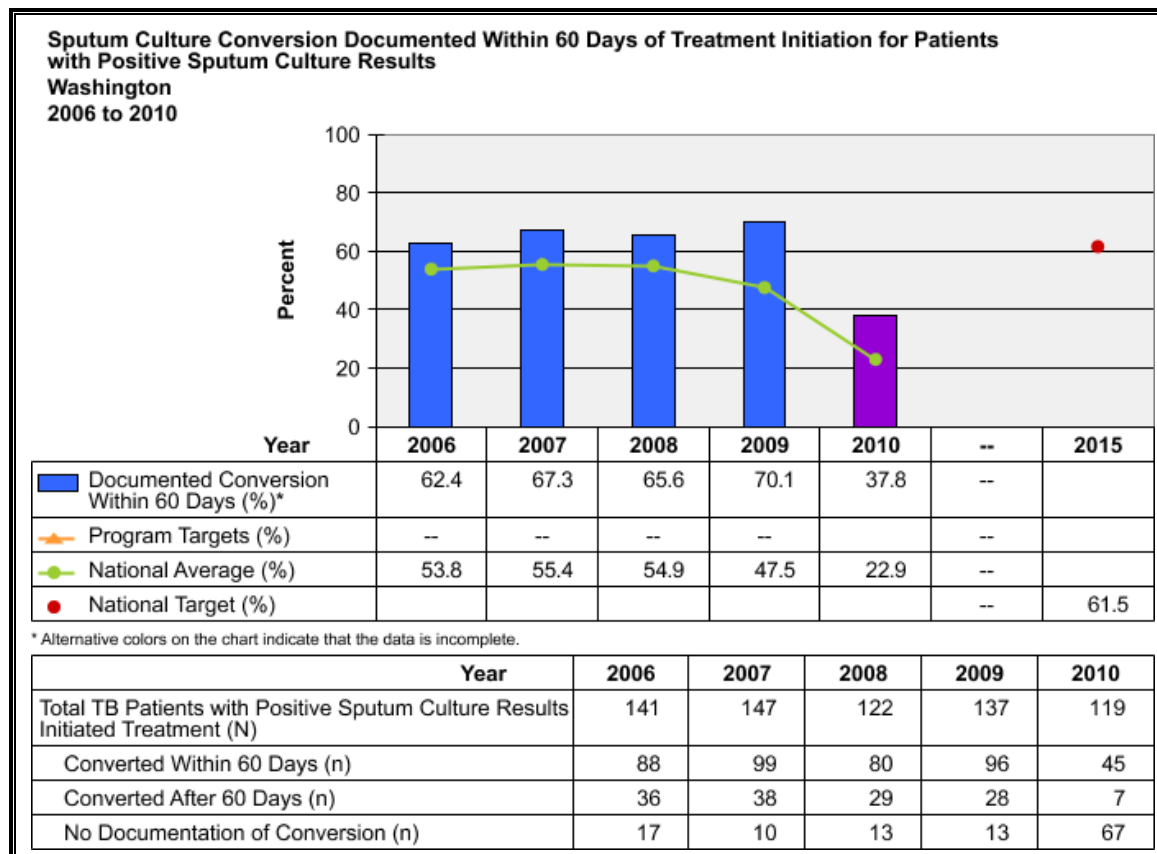
Status: Met.

Most recent data show Washington State demonstrating strong and improving performance in timely initiation of treatment for sputum smear-positive TB cases. With 88.7% of such cases initiating treatment within 7 days of specimen collection in 2010, Washington State has exceeded its 2010 benchmark of 87.0% for this measure.

Discussion:

As more and more private and public health care providers become familiar with the NAAT, as well as other rapid diagnostic tests offered by the WA PHL and commercial laboratories, we expect to see the time from specimen collection to treatment initiation to continue to decrease.

OBJECTIVE 6. Culture Positive TB Cases—Sputum Culture Conversion Documented Within 60 Days of Treatment Initiation



Status: Met.

In years 2006 through 2009, Washington State has surpassed the national average, the 2015 National Target, and its own 2010 benchmark of 62.0% for the proportion of sputum culture-positive TB cases experiencing documented culture conversion within 60 days of initiating treatment. While 2010 data remain preliminary at this time of reporting, past figures support an expectation for continued strong performance in this measure.

Discussion:

Since the implementation of WA State TB PHIMS (web-based surveillance and reporting program that replaced TIMS in 2009) DOH TB Program staff have been able to work closely with all Local Health Jurisdictions reporting infectious tuberculosis cases to ensure that documentation and reporting of culture positive cases is done wnd that case management and activities follow CDC and ATS guidelines.

OBJECTIVE 7a. RVCT—Core Data Reporting

National Objective: Increase the completeness of each core Report of Verified Case of Tuberculosis (RVCT) data item reported to CDC, as described in the TB Cooperative Agreement announcement, to 99.2% by 2015.

Variable	RVCT Fields	(N)	Washington 2010 Unknown Missing (n)	Complete (n)	Complete (%)
Date of Birth	7	239	0	239	100.0
Race	10	239	7	232	97.1
Country of Origin	11	239	4	234	97.9
Month-Year Arrived in U.S.	12	167	15	152	91.0
Status at Diagnosis of TB	13	239	0	239	100.0
Previous Diagnosis of Tuberculosis	14	239	4	235	98.3
Major Site of Disease	15	239	6	233	97.5
Sputum Smear	17	239	0	239	100.0
Sputum Culture	18	239	3	236	98.7
Culture of Tissue and Other Body Fluids	20	239	1	238	99.6
Nucleic Acid Amplification Test Result	new	239	1	238	99.6
Chest X-ray	21	239	2	237	99.2
Tuberculin Skin Test at Diagnosis	22	239	15	224	93.7
HIV Status	23	239	18	221	92.5
Initial Drug Regimen	27	236	2	234	99.2
Date Therapy Started	28	236	1	235	99.6
Initial Drug Susceptibility Results	33	197	3	194	98.5
Susceptibility Results	34	193	0	193	100.0
Sputum Culture Conversion Documented	35	126	60	66	52.4
Date Therapy Stopped	36	234	117	117	50.0
Reason Therapy Stopped	37	234	117	117	50.0
Directly Observed Therapy	39	234	98	136	58.1
TOTAL		4,963	474	4,489	90.4

Status: Ongoing.

For 2010, in reporting of several core RVCT variables Washington State has met or exceeded its own 2010 benchmark of 99.0%; and for many of these same data elements met or surpassed the 2015 National Target of 99.2%.

Discussion:

Items targeted for improvement include reporting of: country of origin; month/year of arrival in U.S.; major site of disease; sputum culture, HIV status; and initial drug-susceptibility results. Findings on 2010 reporting of several treatment-related data elements (e.g. culture conversion documented, directly observed therapy) should be considered preliminary until case completion information is documented and reported.

OBJECTIVE 7b. ARPE—Core Data Reporting

National Objective: Increase the completeness of each core Aggregated Reports of Program Evaluation (ARPEs) data item reported to CDC, as described in the TB Cooperative Agreement announcement, to 100.0% by 2015

Status: Ongoing.

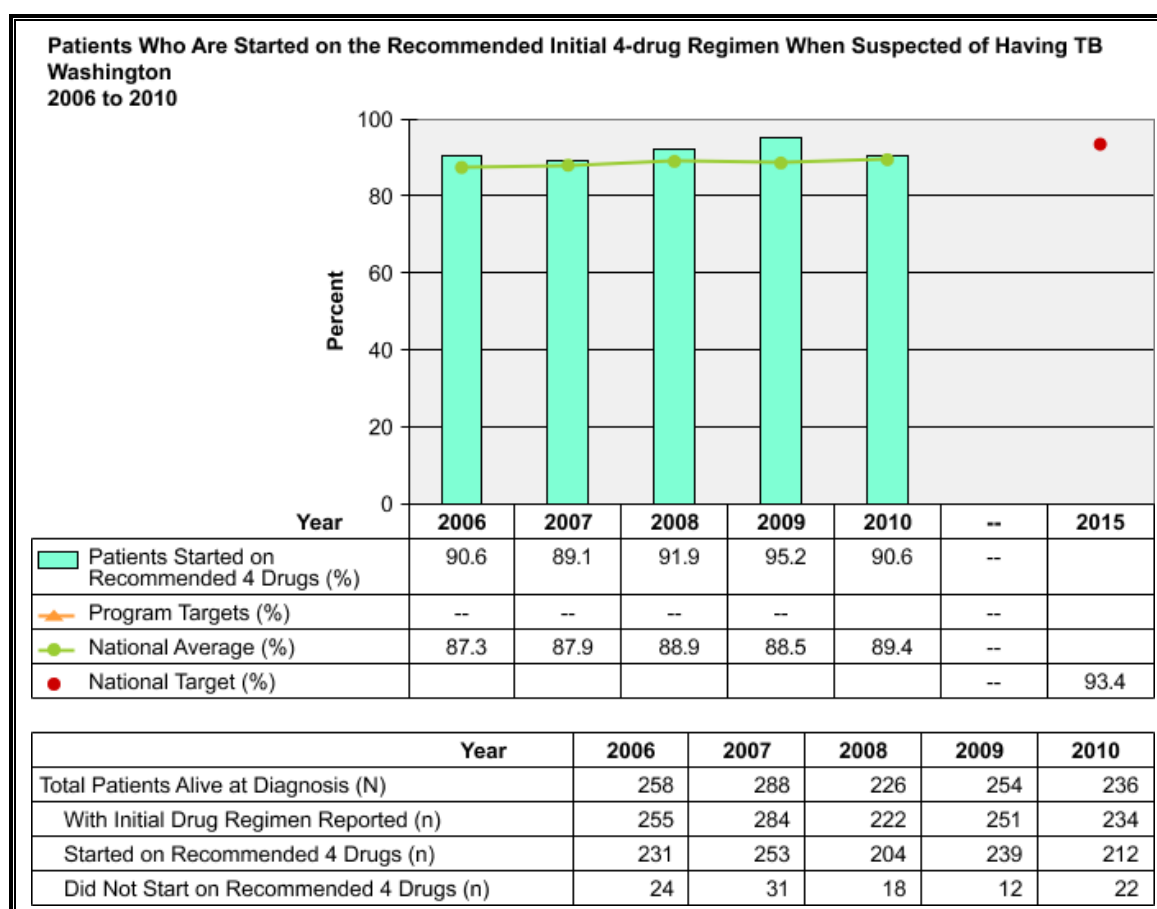
Past program performance supports the expectation that Washington State will continue to meet its obligations in ARPE reporting. Consistent with most recent guidance provided with notification of the reinstatement in ARPE reporting requirements, Washington State will submit 2009 final and 2010 preliminary ARPE reporting data by August 15, 2011.

Discussion:

12 of the 39 Local Health Jurisdictions in Washington State are currently participating in collecting and reporting ARPE data. In the last few years the majority of health departments/districts here have chosen to test and treat positive TST found in contact investigations only. County residents who are considered low-risk to but are required by job, school, or travel to be tested are encouraged to access local health care facilities and providers.

Since the implementation of WA State TB PHIMS (web-based surveillance and reporting program that replaced TIMS in 2009) DOH TB Program staff have been able to work closely with all Local Health Jurisdictions reporting tuberculosis cases to ensure that valuable local resources and staff time is used to, when appropriate, initiate a contact investigation, perform contact interviews, screen/evaluate, and treat (as indicated) high risk contacts.

OBJECTIVE 8. TB Treatment Starts—Recommended 4-Drug Regimen



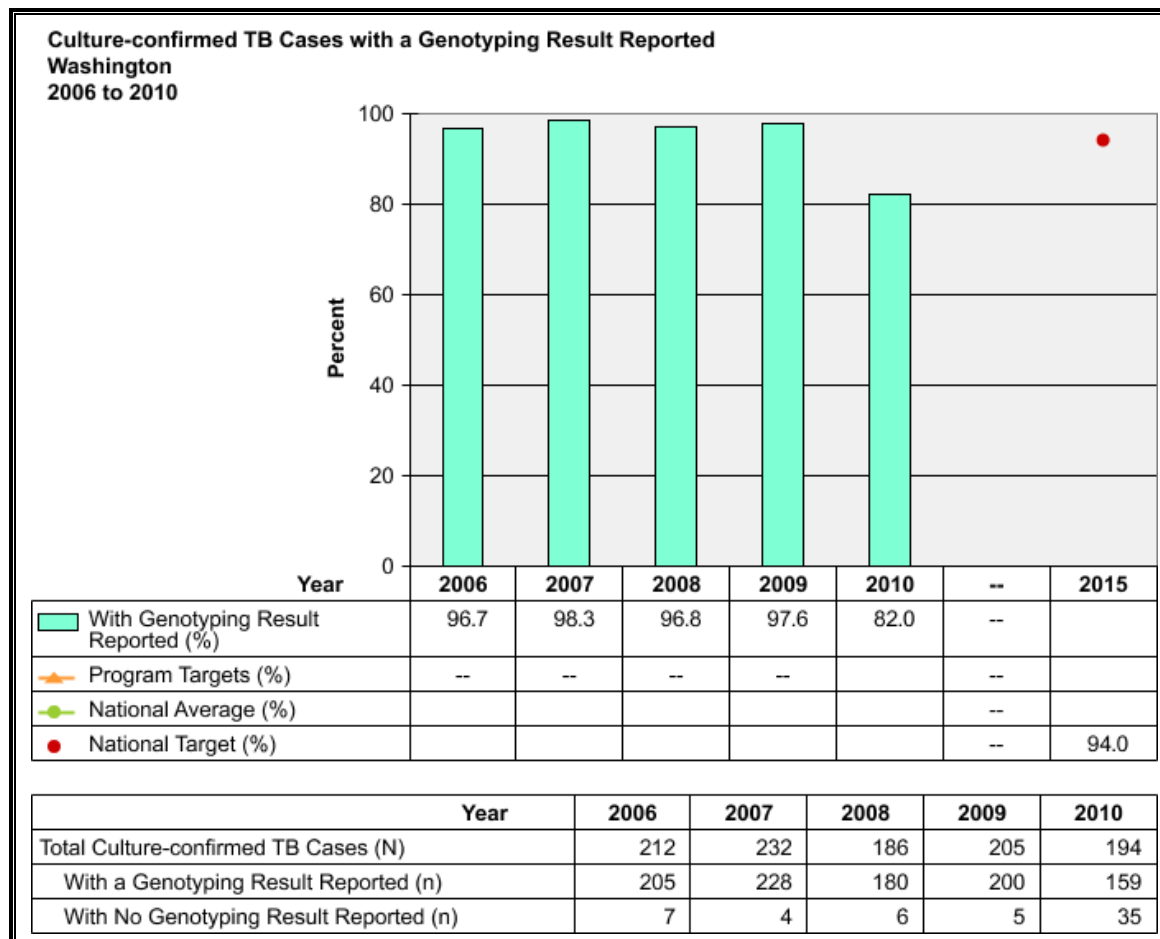
Status: Ongoing.

In years 2006 through 2010, Washington State has demonstrated inconsistent though overall encouraging performance in initial TB treatment regimens being consistent with recommended 4-drug protocol; in each of these years surpassing the national average for this measure. While 2010 data show Washington State falling short of its 2010 benchmark of 92.0%, performance data in 2009 (95.2%) show that meeting or exceeding both program benchmarks and the National Target of 93.4% is possible for Washington State.

Discussion:

Of the 239 cases of TB counted and started on treatment in Washington in 2010 9 did not start on the recommended initial 4-drug regimen: 4 died before treatment could be started; 1 was a pediatric patient with XPTB that was diagnosed after treatment with other antibiotics and improved; 1 had drug sensitivities reported prior to starting treatment and was INH resistant; 1 was a foreign-born contact to a MDR-TB case that left the United States to return home prior to positive laboratory results; 1 had a history of incomplete treatment for LTBI and INH resistance was suspected; and 1 had a history of severe adverse reactions to antibiotics (started on Ethambutol, Streptomycin and Moxifloxacin).

OBJECTIVE 9. Culture-confirmed TB Cases—Reporting of Genotype Results



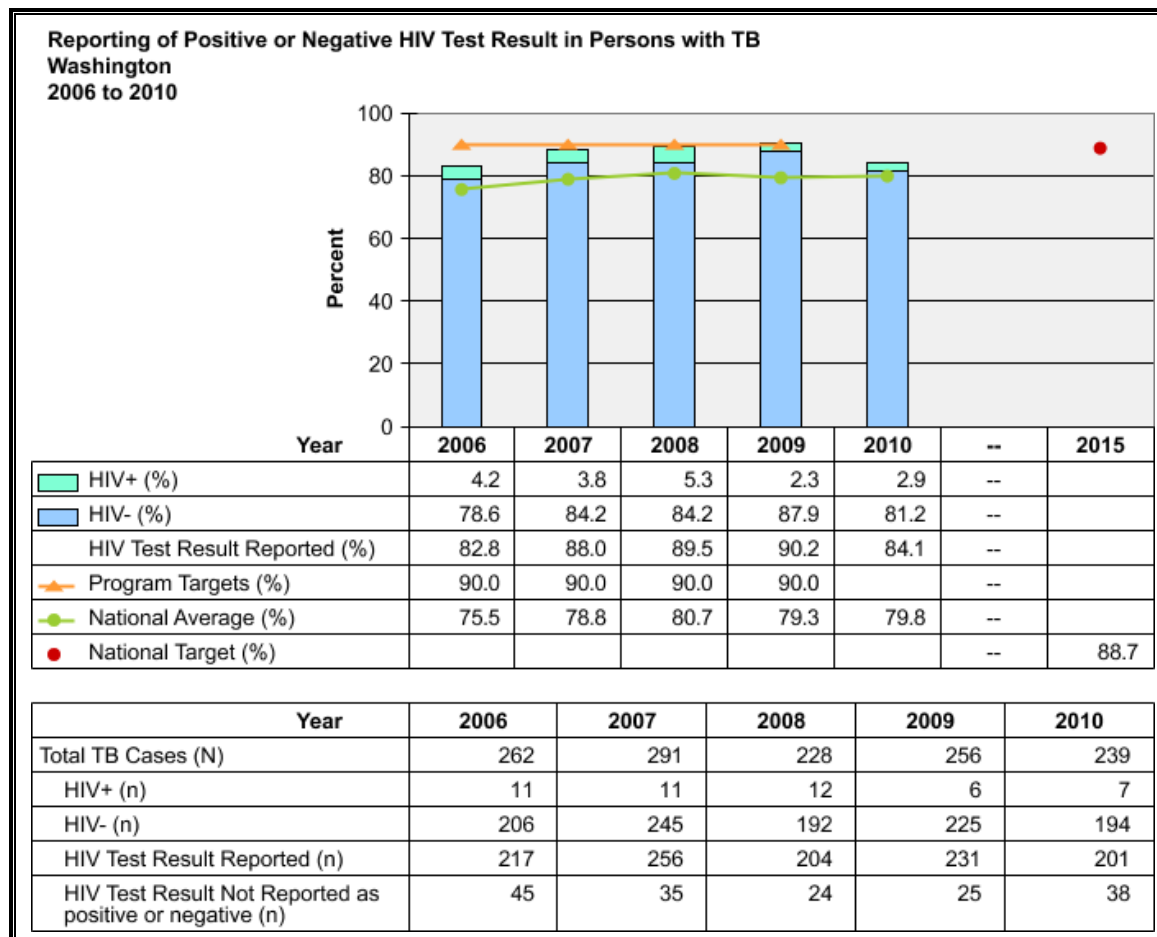
Status: Met.

In years 2006 through 2009, Washington State has exceeded its 2010 benchmark (94.0%) for genotype reporting on culture-confirmed cases, as well as the identically-defined 2015 National Target for this measure. While 2010 data remain preliminary at this time of reporting, past figures support an expectation for continued strong performance in this area.

Discussion:

The Washington State Public Health Laboratory sends an isolate of all culture positive specimens of Washington residents to Berkley, CA for genotyping. Genotyping results are reported to the CDC GIMS program staff and to DOH TB program staff; monthly meetings are held with the WA State TB Medical Consultant, the epidemiologists of Public Health Seattle King County and DOH TB Program as well as the WA State TB Controller to review and analyze genotyping results and discuss on-going and newly-identified clusters.

OBJECTIVE 10. TB Cases—HIV Status Reporting



Status: Ongoing.

From 2006 through 2010 Washington State has—in comparison to the national average—demonstrated strong performance in the proportion of TB cases for whom definitive HIV status is reported; in years 2007-2009 surpassing its 2010 benchmark of 85.0%, while in 2008 and 2009 exceeding the 2015 National Target of 88.7%. Though recent successes show that the Washington State program is capable of exceptional performance in this area, a decline in reporting to 84.1% for 2010 suggests this will take continued effort.

Discussion:

DOH TB Program staff continues to work with Local Health Jurisdictions to encourage private primary care providers to offer HIV testing to all suspect and confirmed cases of tuberculosis that they are treating.

OBJECTIVE 11. Evaluation of Immigrants and Refugees ¹

	Year of Arrival	
	2009	2010
Number of Immigrant/Refugee Arrivals	928	997
Immigrant/Refugee Arrivals— Count and (Percent) Initiating U.S Medical Evaluation	777 (83.7)	757 (75.9)
Arrivals Initiating U.S Medical Evaluation— Count and (Percent) Initiating Evaluation Within 30 Days of Arrival	83 (10.7)	324 (42.8)
Arrivals Initiating U.S Medical Evaluation— Count and (Percent) Completing Evaluation Within 90 Days of Arrival	291 (37.5)	513 (67.8)

1. Findings generated using data exported from the Electronic Disease Notification System (EDN).

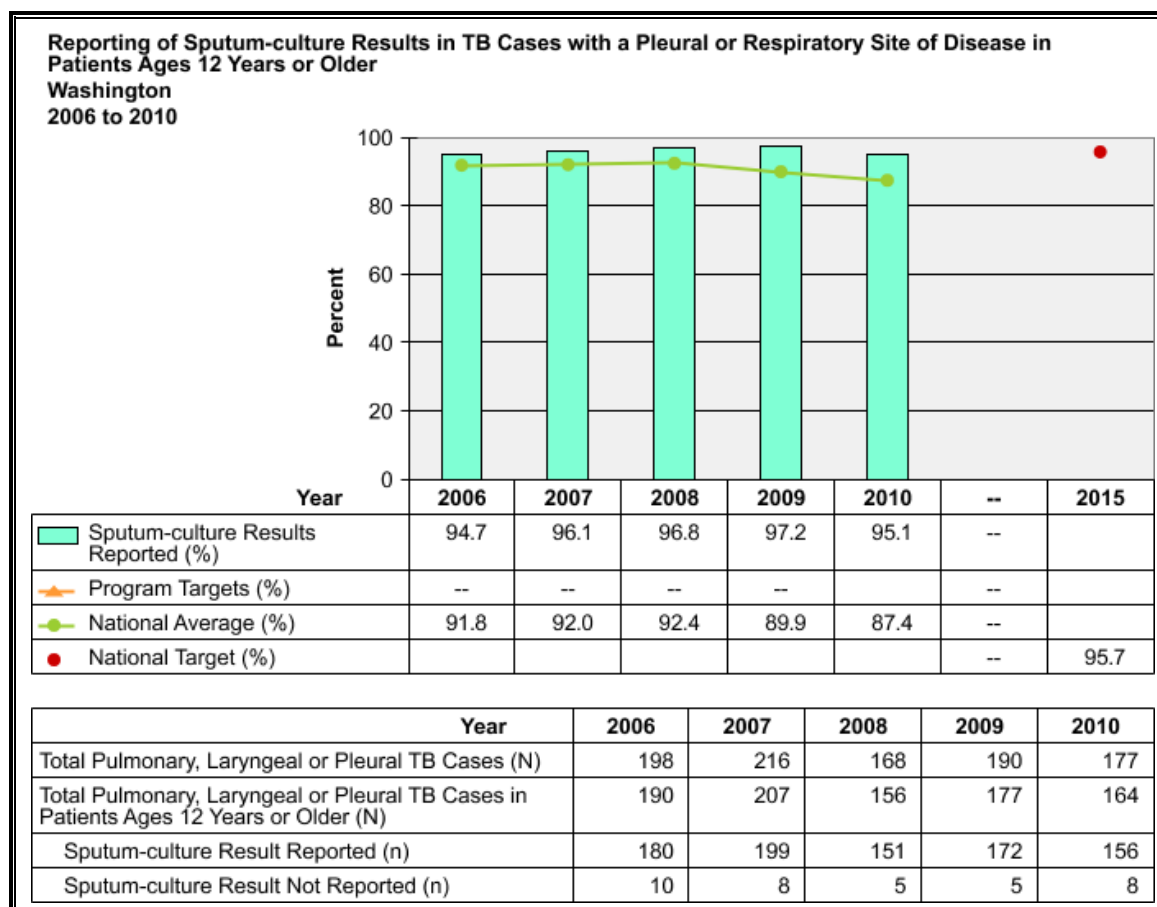
Status: Ongoing.

From 2009 to 2010 Washington State has demonstrated marked improvements in the timely medical evaluation of immigrant and refugee arrivals overall. While a slight decline is noted in the proportion of arrivals initiating medical evaluation—from 83.7% in 2009 to 75.9% in 2010—great gains have been made in the timeliness of both evaluation initiation and completion. From 2009 to 2010, the proportion of immigrant/refugee arrivals initiating medical evaluation who did so within 30 days of arrival increased from 10.7% to 42.8%; while the proportion completing their medical evaluation within 90 days of arrival increased from 37.5% to 67.8%. While 2010 data show Washington State surpassing its 2010 benchmark of 31.0% for initiation of evaluation within 30 days of arrival; its 2010 benchmark for completion of evaluation within 90 days of arrival (80.0%) remains an objective that the program continues to strive towards.

Discussion:

The Electronic Disease Notification (EDN) program has greatly increased both state and local health departments' abilities to track, screen, and, diagnose active TB, and offer LTBI treatment to newly arrived immigrants and refugees with a Class B status. EDN has also improved the efficacy of reporting the status of Class B immigrants and refugees to other states as well as the CDC.

OBJECTIVE 12. TB Cases 12 Years of Age or Older with Pleural or Respiratory Site of Disease—Reporting of Sputum-Culture Results



Status: Met.

In years 2006 through 2010 Washington State has consistently surpassed the national average for the proportion of TB cases 12 years of age or older with a pleural or respiratory site of disease for whom sputum-culture results are reported; showing progressive gains in this measure up until 2010, when performance experienced a slight decline to 95.1%. In all years since 2007, the Washington State program has exceeded its 2010 benchmark of 95.0% for this measure; with data supporting the expectation of meeting the National Target of 95.7% by 2015.

Discussion:

Since the implementation of WA State TB PHIMS (web-based surveillance and reporting program that replaced TIMS in 2009) DOH TB Program staff have been able to work closely with all Local Health Jurisdictions as well as public and private laboratories to electronically report all TB cases in 12 years of age or older with a pleural or respiratory site of disease with sputum-culture results. As local health jurisdiction TB program staff become more familiar with TB PHIMS it is expected that the amount of time used to report suspects and infectious TB cases from the LHJ level to DOH will decrease.